BACKGROUNDING STOCKER CALVES POST-WEANING ON TIFTON 85 BERMUDAGRASS ALONE OR COASTAL BERMUDAGRASS PLUS SUPPLEMENTATION

F. M. Rouquette, Jr., J. Kerby, G. Nimr

Background. A component of the Texas Value Added Calf (TEX-VAC) management program entitled VAC-45 was used with fall born (Sept 15-Nov 15) calves weaned in June. On June 9, steers and heifers (Total n=50) from first-calf Angus x Brahman F-1 dams and Hereford sires (HHAB), and 15 F-1 (HxB) steers were weaned. On June 9, calves received Bovashield 4, 7-way vaccine with somnus, Eprinex Pour-on dewormer, and a fly tag containing 20% Diazanon. From June 9 to June 16 all calves were in weaning lot and received *ad libitum* bermudagrass hay and 3 lbs/hd/da of a 3:1 (corn:soybean meal) ration. On June 16, calves were weighed and stratified by previous treatment, sex, weight, and breed type and randomly allotted to two replicates of two pasture treatments. Pasture treatments were Tifton-85 (T-85) bermudagrass without supplementation, and Coastal bermudagrass with 2 lbs/hd/da of a 1:1 (corn:SBM) ration fed daily (CSUP). The corn:SBM ration also contained .05% Rumensin 80; 1.25% Dicalcium Phosphate; 6.25% Magnesium Oxide; and 2.5% salt. Additional ingredients were added to enhance performance and prevent ration gorging which allowed for all animals an opportunity for ration intake. Stockers were weighed on June 30 and re-vaccinated with Bovashield 4. Additional weighings were made on July 20, August 10, and on August 31 at time of shipment to a commercial feedlot. The primary objectives of this VAC-45 backgrounding experiment were to document weight change during the first week, and to compare T-85 without supplement to CSUP for added calf gain. Previous research with T-85 in Georgia indicated about a 25% increase in animal performance over Coastal bermudagrass. Thus, the hypothesis of this study was that non-supplemented T-85 should produce equivalent weight gains as CSUP.

Research Findings. Steers and heifers from previous cow-calf stocking rate studies were partitioned to show weight change the first week of weaning (Table 1). During the first week post-weaning, the average for steer and heifer weight changes were -5.15, -1.58, and -0.91 lbs/da, respectively, for calves previously stocked at low, medium, and high rates. The HB F-1 steers showed a -2.57 lb/da response. Once calves initiated grazing on June 16, they made rapid, compensating gains. At the end of 41 or 83 days on pasture, backgrounding treatments resulted in similar ADG of about 1.5 to 1.6 lbs/da from both T-85 and CSUP (Table 2). Although there was no effect of pasture treatment on sex of the HHAB calves (1.4 lbs/da), the HB F-1 steers gained more on the T-85 pastures compared to the CSUP pastures (2.20 vs 1.83lbs/da). The

ADG for both breeds across all treatments was very respectable and highest for the HB F-1 at 2.03 lbs/da compared to 1.40 lbs/da for the HHAB (P<.02) during the "summer slump" period of July-August. At relatively similar levels of forage availability in pastures, the stocking rate of T-85 (4.5 hd/ac) compared to CSUP (2 hd/ac) resulted in a two-fold difference in calf gain per acre for T-85 pastures (551 vs 225 lbs/ac).

Application. Decisions to background calves post-weaning are usually based on either projected opportunities to merchandize pre-conditioned, VAC-45 calves, or the desire to retain ownership through the feedlot phase. The success of any backgrounding program is inseparately linked to animal health, and to nutritive value of the pasture-forage and/or supplemental feed. From this initial study, the added nutritive value of Tifton 85 bermudagrass produced as much added weight gain as Coastal bermudagrass plus 2 lbs/da of a 1:1 (corn:SBM) ration containing Rumensin and minerals. However, both management systems were acceptable for backgrounding stocker calves during the summer.

Table 1. Stocker performance during first week post-weaning from three stocking rates (SR).

Previous SR[1]	Breed Type[2]	Calf Sex	Number	Weaning Weight (lbs)	June 16 Weight (lbs)	1-week ADG (lb/da)
LO	HHAB	M	4	840	798	-6.00
LO	HHAB	F	4	743	713	-4.29
ME	HHAB	M	19	709	699	-1.72
ME	HHAB	F	15	708	696	-1.44
HI	HHAB	M	4	684	669	-2.11
HI	HHAB	F	4	642	644	0.29
ME	HB F-1	M	15	562	544	-2.57

[1]Previous stocking rates (SR) during cow-calf phase was low (LO), medium (ME), and high (HI).
[2]Breed types included Hereford x (AxB) [HHAB] and F-1 (Hereford x Brahman) [HB F-1].

Table 2. Average daily gains (ADG) during background phase when calves grazed Tifton 85 bermudagrass without supplementation or Coastal bermudagrass plus supplementation from time of weaning to August 31 (83-days).

Treatment	41-day ADG	Overall 83-day ADG	Stocking Rate	Overall Gain/ac	ADG by Breed Type[2] HHAB	HB F-1
		(lbs/da)	(hd/ac)	(lbs/ac)	--------- (lbs/da) ---------	
Tifton-85	1.64 a	1.61 a[1]	4.5	551 a	1.42 a	2.20 a
CSUP	1.69 a	1.48 a	2.0	225 b	1.38 a	1.83 a

[1]Means followed by a different letter differ statistically (P<.02).
[2]Breed types included Hereford x (AxB) [HHAB] and F-1 (Hereford x Brahman) [HB F-1].